

2012 Water Quality Report

UNE 2013

Noticia Importante

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

Consumer Confidence Report

This report is meant to provide you with the facts, not sales pitches, misleading statements, or wrong conclusions. It contains information about your drinking water, its source, how it is treated and most importantly its quality. It also contains a table of contaminants detected in samples collected in the year 2012 and mandatory health advisories about drinking water and bottled water.



How Dependable is My Water?

San Antonio Water Company tested your water 312 times during 2012 for harmful bacteria. These routine samples resulted in no positive detections for coliform bacteria throughout the year.

The Water Company also test the water for 52 known chemical listed in Title 22 with the results returning as either non-detectable or well below the Maximum Contamination Limit or MCL.

In 2012 San Antonio Water Co. tested selected wells for Gross alpha. Alpha radiation is naturally occurring element in the soil, air and even in the masonry of your home. As the radioactive elements decay, alpha radiation naturally continues to be release into the ground water. The water company pumps this ground water as a source for your drinking water. Our wells are scheduled for sampling as directed by the Department of Health Services or every three years. Samples collected are checked for Gross Alpha activity and results may vary from location to location. Should any sample results return above the drinking water standards the Water Company would have to develop a plan to reduce those levels to below the drinking water standards. There are no immediate health risks from drinking water that contains alpha radiation; however, over the long term elevated levels may cause bone cancer, and water with elevated levels of uranium increases ones risk of kidney damage. Well water resulting in a detection value of greater than 5pCi/L will trigger additional samples to be taken, usually Uranium. The water company's Well #15 sample results returned at 9.6 picocuries per Liter or pCi/L; still in compliance with drinking water standards of less than 15 pCi/L which is the MCL for Gross Alpha radiation, but triggers the extra sampling of Uranium. Detection results for uranium from this ground water source returned at 6.0 pCi/L well below the MCL of 20 pCi/L.

Water, taken in moderation, cannot hurt anybody.

Mark Twain

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The Water Company is also required by the Department of Health services to annually test our tunnel water for the presence of Cryptosporidium and Giardia lamblia which can be present in most surface waters. Another test taken by the water company to assess the risk of being under the influence of surface water contamination is a particulate analysis sample. Both samples are taken during the time of the year when we experience higher tunnel flows, which normally occurs during the first parts of the year. This consists of running approximately 900 gallons of water through a micron filter at a flow rate of 1 gallon a minute to trap any indicators of surface water (organic debris, algae, diatoms, plant material, crustacean, insects, and larva) that may be associated with surface waters. In all test taken for Cryptosporidium and Giardia lamblia the results returned as non-detectable. The results for the particulate analysis were returned with the results as not being under the influence.



What if I have questions about my water & how can I get involved?

San Antonio Water Company is a private Mutual Water Company, formed pursuant to the State Corporations Code. Our Board of Directors meetings are open to the public and allow for shareholders and public testimony in the beginning of each open monthly board meeting. For more information about your water and consumer input opportunity, call (909)982-4107 at any hour and ask the office staff or request a response from our General Manager, Charles Moorrees. If your message is left after business hours, your question will be answered in a timely manner. For meeting dates and locations see our website for information and the ability to contact the office via email www.sawaterco.com.

Who is the EPA & what do they say about drinking water contaminants?

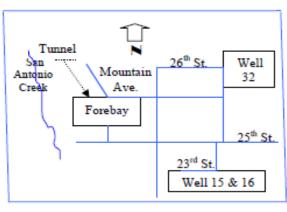
The EPA (Environmental Protection Agency) was established in 1970 by the White House and Congress. Their mission is to protect human health and the environment.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminates. The presence of contaminates does not necessarily pose a health risk. *More information about contaminates and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline* [1-800-426-4791].



Where does your water come from?

Your drinking water supply comes from three deep wells and a deep rock tunnel. Our domestic wells are located in two underlying groundwater basins (Cucamonga, and Chino) and the deep rock tunnel is in the lower San Antonio Canyon. Before the water is delivered to the domestic system we add a disinfectant (sodium hypochlorite) to protect you against the natural occurring microbial contaminates.



The existence of water is essential for life on Earth.



Are there other factors that affect my health?

Some people may be more vulnerable to contaminates in drinking water than the general population. *Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections.* These people should seek advice about drinking water from their health care professionals. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminates are available from the *Safe Drinking Water Hotline* [1-800-426-4791].

Why are there contaminates found in drinking water?

Sources of drinking water (both tap and bottled) include springs, ponds, streams, rivers, lakes, reservoirs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activities. Contaminates that may be present in source water include:

- ♦ <u>Microbial contaminates</u>, such as viruses and bacteria, which may come from septic systems, sewage treatment plants, agricultural livestock operations and wildlife.
- ♦ <u>Inorganic contaminates</u>, such as salts, and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- <u>Pesticides and herbicides</u>, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- Organic chemical contaminates, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

Radioactive contaminates can be naturally occurring or is the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminates in water provided by both public and private water systems. DHS regulations also established a limit for contaminates in bottled water that must provide the same protection for public health.



What is the significance of contaminates?

<u>Nitrate</u> in drinking water at levels above 45 [one part per million (ppm) is equivalent to 4 drops of ink in a 55 gallon barrel of water] is a health risk for infants typically less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific

enzyme deficiencies. If you are caring for an infant, or are pregnant, you should ask advice from your health care professional. The presence of Nitrate in our sources for irrigation water is due to activities associated with fertilization practices on golf courses, residential areas, septic systems (low density), and leaking sewer collection systems.

<u>Lead</u> in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. San Antonio Water Company is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components in your home. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.



What is Specific Conductance (SC)?

What is Specific Conductance (SC)? Generally, there aren't regulatory levels of Specific Conductance (SC). Instead, the concentration of total dissolved solids (TDS) is often regulated. Specific Conductance (SC) is a measure of how well water can conduct an electrical current. SC is an indirect measure of the presence of dissolved solids such as chloride, nitrate, sulfate, phosphate, sodium, magnesium, calcium and iron, and can be used as an indicator of water pollution. Specific Conductance measures how well water

can conduct an electrical current at a certain temperature and is a good indicator of the amount of dissolved solids in a water, and thus can be used to detect contaminants in water.

As a comparison, pure water would theoretically have an SC value of zero μ S/cm at 25°C. Sea water has an SC of approximately 50,000 μ S/cm, because of the large amount of dissolved salts it contains.

The typical conversion of conductivity to the total dissolved solids is done assuming that the solid is sodium chloride: $1 \mu S/cm$ is then an equivalent of about 0.6 mg of NaCl per kg of water. In the past, units of EC were micromhos per centimeter was shown as $\mu S/cm$ and is now shown as microsiemens/cm or $\mu S/cm$ to describe the conductivity of water solutions.



What are drinking water standards?

Individual water companies do not decide what constitutes "safe" water. The federal Safe Drinking Water Act requires all public water supplies in the State to meet stringent quality standards. Those standards are set by the State Department of Health Services, Division of Drinking Water in concert with the United States Environmental Protection Agency. These two organizations set standards that are very protective of the public's health. In California, drinking water standards (also called Maximum Contaminate Levels or MCLs) are set in two categories. Primary standards relate to public health concerns, and the secondary standards relate to aesthetic qualities such as taste, odor and color. You will find a complete listing in this report of the standards alongside the test results on those contaminates detected in the source waters.

How do I read this report?

Below are terms to assist consumers in understanding this report.

You should never drink water straight from a lake or river, as it can be damaging to your health.

	<u>Definition</u>
Health Goal	The level of a contaminant in drinking water below
	which there is no known or expected risk to health.
	PHGs are set by the California Environmental
	Protection Agency.
num Contaminant Level Goal	The level of a contaminant in drinking water below
	which there is no known or expected risk to health.
	MCLGs are set by the U.S. Environmental
	Protection Agency.
num Contaminant Level	The highest level of a contaminant that is allowed
	in drinking water. MCLs are set as close to the
	PHGs and MCLGs as is economically or techno-
	logically feasible.
ry DrinkingWater Standard	Primary MCLs specific treatment techniques adopted in lieu of primary MCLs and monitoring and reporting requirements for MCLs that are
	Health Goal num Contaminant Level Goal num Contaminant Level ry DrinkingWater Standard

specified in regulations.

Abbreviations, Symbols & Descriptions



MCL = Maximum Contaminant Level

ND = Monitored for but Not Detected - detection limits are available upon request

NS = No Standard

NA = Not Analyzed - standards have not been finalized

NC = Not Collected

TU = Nephelometric Turbidity Units. This is a measure of the suspended material in water

pCi/L = picoCuries per Liter

umho/cm = micromhos per centimeter

ppm = Parts per million

DPH = Department of Public Health

ug/L = micrograms per liter

ppb = Parts per billion

ppt = Parts per trillion

(a) = results are based on distribution systems sampling of approximately

451 samples

(b) = sources are blended to meet State MCL

(c) = calculated on a running annual average

(d) = measured in million fibers per liter (longer than 10 microns)

(e) = State level is dependent upon air temperature

(f) = to convert the data from NO3 to N (Nitrogen) divide by 4.43

 μ S/cm = microsiemens per centimeter

WATER QUALITY DATA

"The table below lists those water contaminates and physical properties from the 3 domestic wells and tunnel flow that were detected during the 2012 calendar year. The presence of contaminates in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January through December 2012. The State of California requires us to monitor about 130 different contaminates and physical properties, some of which are monitored less than once a year. This lesser frequency is because the concentrations of certain contaminates are not expected to vary significantly from year to year; therefore, some of the data is more than one year old, but is still representative of the water quality."

CONTANDIATE	(CCD II		State PHG		Range of	Most Recen	X7: 1-:-	T 6 CC 1 : 1 6 D : 12
<u>CONTAMINATE</u>	(CCR Units)	<u>MCL</u>	Fed. [MCLG]	Water	<u>detection</u>	Sample Yr.	<u>Violation</u>	Typ. Source of Contaminate & Pertinent Notations
Microbiological								
a) Total coliforms Fecal coliforms &	(% positive) E. coli (# positive)	5	[0] [0]	<.01 0	0-2 0	2009 2009	N N	Naturally present in the environment Human and animal fecal waste
Radionuclide								
1	(pCi/L) (pCi/L)	15 NS 20	[0] NS [0]	0.43 ND 0.46	0-1 ND 0-2	2012 2005* 2012	N N N	Erosion of some natural minerals Decay of radioactive elements (a gas) Radioactive metallic element occurring naturally in minerals
norganic e) Fluoride	(ppm)	2	.42	0.05	0-0.12	2012	N	Erosion of natural deposits, discharge from fertili-
	41 /							zer and aluminum factories and an additive for teeth
ead	(ppb)	15	2	ND	ND	2006*	N	Corrosion of water plumbing, discharges from industries and erosion of natural deposits
Vitrate [NO3]	(ppm) (b)&(f)	45	45	0.87	0-3	2012	N	Leaching from fertilizer (animal waste), septic tanks and sewage; erosion of natural deposits
/anadium (ug/	L)	NS	NS	0.31	0-1	2012	N	Naturally present in the environment
Synthetic Organics incl. Pesticides &								
b) Dibromochloro DBCP	propane (ppm)	2	1.7	0.1	0-0.1	2010	N	Leaching of Nematocide used in soils (banned) in groves, vineyards and crop fields
Additional Parame	ters Tested							
Bicarbonate		NS	NS	23.54	6-57	2012	N	Leaching from naturally-occurring materials
Calcium (ppm) Chloride (ppb)		NS 500	NS NS	13.38 1.06	1-34 0-2	2012 2012	N N	Leaching from naturally-occurring materials Leaching from natural deposits and seawater influence
Hardness [CaCO3]	(ppm)	NS	NS	44.33	0-119	2012	N	Bonding of naturally-occurring calcium and car bonate ions in solution
Magnesium (ppm)		NS	NS	3.08	0-9	2012	N	Leaching from naturally-occurring materials
Odor threshold (Un oH (Units)	nits)	3 NS	NS NS	0.25 1.95	0-1 0-5	2012 2012	N N	Naturally-occurring organic materials Naturally-occurring leachate blend from acid and base materials
Aggressive Index		NS	NS	2.96	0-8	2012	N	A unit of measurement for corrosivity in drinking water
Alkalinity (ppm)		NS	NS	40.68	5-105	2012	N	
Potassium (ppm)		NS	NS	.50		2012	N	Leaching from naturally-occurring materials
Sodium (ppm)		NS	NS	2.61		2012	N	Salt present in the water and is generally naturally occurring
Specific Conducta	nce (micro-ohms)	"1,600	" NS	94.46	5 10-244	2012	N	Substances that form ions when in water and seawater influence
Sulfate (ppm)		500	NS	2.43	5 1-6	2012	N	Leaching from natural deposits and industrial wastes
Total Dissolved So		'1,000"		59.63	7-152		N	Leaching from natural deposits
Turbidity [grounds	water] (T.U.)	TT	NS	0.03	0-0.13	3 2012	N	Soil runoff. This is a good indicator of water quality and the probable effectiveness of disinfectants
TTHM (ug/L) Total Trihalometh	nanes)	.080	NS	.86	0-3	2011	N	Stage 1 disinfection by-product sampling. By-
HAA5 (ug/L)		.060	NS	ND	ND	2011	N	products are formed when disinfectants used in water react with natural organic matter present in
Perchlorate		6	NS	ND	ND	2008*	N	source water, forming these groups of chemicals that may be harmful to human health. Extensive research is underway to better understand potentia
*D	nonitored and not	detecto	d) result, waiver	received	from Depar	tment of Pub	lic Health (1	risk to exposure.



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Your Water Quality Report is produced annually to keep San Antonio Water Company shareholders informed about the water system, water sources, definitions, levels of detected contaminants, water quality compliance/violations, and some educational information. If you have any questions or comments, please call the office at 909-982-4107.

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What can I do to help protect our water?



San Antonio Canyon Watershed

9th Annual Clean Up Day

Please join us as we volunteer to clean and maintain the watershed that supplies water to our customers. Dress appropriately and bring sun protection.





Your source water assessments

A source water assessment was conducted in December 2002 on the canyon tunnel, and the wells that comprise the San Antonio water system. A copy of the complete assessment may be viewed at the San Antonio Water Company office. You may also request a summary of the assessment by contacting the Department of Public Health (DPH) District Engineer at (909) 383-4328. The purpose of the assessment was to determine the vulnerability of our sources to "possible contaminating activities" (PCAs) and to identify the possible sources of contamination.